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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/044,301	10/26/2001	Lawrence J. Karr	50037.66USU1/177810.2	6819
27488	7590	08/11/2004	EXAMINER	
MICROSOFT CORPORATION C/O MERCHANT & GOULD, L.L.C. P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903			JACKSON, BLANE J	
			ART UNIT	PAPER NUMBER
			2685	4
DATE MAILED: 08/11/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/044,301

Applicant(s)

KARR, LAWRENCE J.

Examiner

Blane J Jackson

Art Unit

2685

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4-11 is/are allowed.
- 6) ☒ Claim(s) 1-3, 12-14, 20 and 21 is/are rejected.
- 7) ☒ Claim(s) 15-19 and 22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 October 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ryan (U.S. Patent 6,330,334) with a view to Lebby et al. (U.S. Patent 6,158,884).

As to claims 1-3, Ryan teaches a method for recording data from a wireless communication transmission comprising:

Starting a capture sequence for the receiver in the receive mode;

Receiving the wireless communication transmission and producing a base-band signal with the receiver;

Digitizing the complex base-band signal from a captured transmission (column 2, line 66 to column 3, line 34), and

Storing the digitized complex base-band signal in a buffer without further processing (column 1, line 66 to column 2, line 41 and column 4, lines 8-14).

Ryan teaches this system may be part of an existing radio receiver, sharing component of the radio receiver (column 2, lines 25-42) but does not teach disabling at least a portion of non-essential electronics when a receiver is tuned in a receive mode

such that the effects of noise in the digitized complex base-band signal are minimized while the digitized complex base-band signal is received.

Lebby teaches a wrist watch integrated with communicative electronics optionally including a cellular telephone, pager, or two-way radio as well as a data bank or file, smart card storage and a micro recorder (figure 1A, column 3, lines 9-47). Lebby also teaches the device may include a speaker, microphone and display to support the integrated functions where the display enables the user to ascertain general types of information stored, or downloaded into the electronics device or to receive transmitted communications (column 6, lines 8-12). Lebby teaches the user can configure the electronics to turn off the display and/ or any addition electronic devices integrated as part of the device that the user is not utilizing. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ryan with the power control methods of the integrated portable device of Lebby to save on power consumption.

3. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cleveland (U.S. Patent 6,683,908) with a view to Ryan (U.S. Patent 6,330,334).

As to claim 12, Cleveland teaches an apparatus for wireless communication comprising:

An antenna that produces an RF signal in response to a signal that is in a particular frequency band (figure 2, antenna (201)),

An RF amplifier is coupled to the antenna and produces an amplified RF signal in response to the RF signal (column 5, lines 47-55),

An IF signal processor is coupled to the RF amplifier and produces an IF signal in response to the amplified RF signal,

A base-band signal processor is coupled to the IF signal processor and produces a base-band signal in response to the IF signal (figure 2, down converter and demodulator where the down converter inherently includes the RF to IF conversion, the demodulator down converts the signal to in-phase and quadrature base-band signals (column 5, lines 55-57),

A post detector processor is coupled to the base-band signal processor and produces two digital signals in response to the base-band signal, the two digital signals corresponding to a digitized I and q base-band signal (ADC sampling circuit (215) to digitize the I and Q base-band signals, column 5, lines 64-65),

A buffer is coupled to the post detector processor and stores the digitized I and Q base-band signals when active wherein the digitized I and q base-band signals are stored in the buffer for post processing such that signal processing may be performed on the stored digitized I and Q base-band signals at a subsequent time after transmission has been received (figure 2, memory (220), column 5, lines 65-67).

Cleveland teaches a CDMA receiver with specific equipment to sample and store data (figure 1) but does not teach a system to respond to a FM signal where the stored digitized I and Q base-band signals are processed at a subsequent time after an entire transmission has been received.

Ryan teaches a radio system to receive and store TV or FM radio RF signals (column 1, line 66 to column 2, line 24). It would have been obvious to one of ordinary

skill in the art at the time of the invention to apply the equipment of Cleveland with the application of Ryan to allow a user to listen to specific content of information when and where he or she wants to.

4. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cleveland (U.S. Patent 6,683,908) and Ryan (U.S. Patent 6,330,334) and in further view of Louetinov et al. (U.S. Patent 6,597,899).

As to claim 13, with respect to claim 12, Cleveland modified teaches a general down converter and demodulator to derive I and Q base-band signals (figure 2, down converter (210) but does not specifically teach an image reject down converter of specific architecture.

Souetinov teaches an image reject mixer based on the Gilbert Cell configuration to derive I and Q base-band signals (figure 1, column 2, lines 30-38).

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply in the general down conversion circuits of Cleveland modified the image reject mixer of Souetinov to provide an image reject mixer since they are preferred over conventional mixers that require bulky and expensive image reject filters.

As to claim 14, with respect to claim 13, Cleveland modified teaches a does not teach specific mixer topology comprising a first and second mixer, a 45 degree phase shifter disposed in each signal path and a summer that produces an IF signal by adding the first and second shifted signals.

Souetinov teaches the function and one of a variety of image reject mixer architectures where:

a first mixer that multiplies a sine signal with the amplified RF signal to produce a first signal (figure 1, first mixer core (3)),

a second mixer that multiplies a cosine signal with the amplified RF signal to produce a second signal (second mixer core (4)),

a first phase shifter produces a first shifted signal that corresponds to the first signal shifted by -45 degrees,

a second shifted signal that corresponds to the second signal shifted by $+45$ degrees (column 3, line 62 to column 4, line 4 and column 4, lines 53-65), and,

a summer that produces an IF signal by adding the first and second shifted signals (figure 1, summer (7), column 3, lines 37-46).

It would have been obvious to one of ordinary skill in the art at the time of the invention to recognize in Cleveland modified configuration of the image reject mixer of Souetinov such that the cascade connection of the mixer system provides improved noise performance and linearity with reduced current consumption.

5. Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cleveland (U.S. Patent 6,683,908) and Ryan (U.S. Patent 6,330,334) and in further view of Lebby et al. (U.S. Patent 6,158,884).

As to claim 20, the claim elements of claim 20 are discussed in the rejection for claim 12 but do not teach an apparatus for wireless communication in a watch having a watchband.

Lebby teaches a watch and watch band that is integrated with communicative and storage devices (figure 1A, column 3, lines 9-47).

It would have been obvious to one of ordinary skill in the art at the time of the invention to realize the system of Cleveland and Ryan in the integrated watch of Lebby or ease of portability by the user.

As to claim 21, Cleveland does not teach the buffer stores multiple segments that are associated with a single transmission, wherein each segment is part of the single transmission such that the single transmission is reassembled by a controller subsequent to receipt of all of the segments.

Ryan teaches the transmitted information is categorized, stored and accessed in a conventional hierarchy database in memory under control of a microcontroller signaled by the user interface (column 4, lines 8-14)

It would have been obvious to one of ordinary skill in the art at the time of the invention to recognize in Cleveland the information storage and playback control of Ryan to present the information coherently in user selected order.

Allowable Subject Matter

6. Claims 15-19 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 4-11 are allowed. As to claim 4, prior art made of record failed to teach a method for recording data from a wireless communication transmission comprising: issuing a shut-down alert, tuning the receiver to a desired frequency, disabling at least a portion of non-essential electronics after the shut-down alert and the receiver tuning has settled, starting a capture sequence for the receiver, stopping the capture sequence for the receiver at the expiration of a predetermined time interval and enabling the at least a portion of the non-essential electronics after the expiration of the predetermined time interval.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ma et al. (U.S. Patent 6,563,805) discloses a digital radio recording system based on a XM radio receiver using a data buffer to store a quantity of digital signals prior to recording. Fontes et al. (U.S. Patent 6,114,989) discloses a GPS data recorder and playback system. Bengner et al. (DE 3134846 A1) discloses a method for improving the signal to noise ratio of radio signals where the signal is down converted, sampled and stored for playback with other successive data records. Harrison et al. (U.S. Patent 6,028,887) discloses a power efficient receiver that samples an incoming signal and stores the sample in memory where power is inhibited to the

tuner of the receiver to minimize power consumption and other receiver sections may be selectively controlled to minimize power consumption.

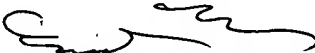
The following prior art is of particular relevance but does not pre-date the applicant's priority date: King-Smith (U.S. Patent 6,697,608) discloses a digital audio/visual receiver with recordable memory.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blane J Jackson whose telephone number is (703) 305-5291. The examiner can normally be reached on Monday through Friday, 8:00 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (703) 305-4385. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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